News Release

Defense Advanced Research Projects Agency

"Providing technological innovation for national security for over 40 years."

3701 North Fairfax Drive
Arlington, VA 22203-1714

IMMEDIATE RELEASE February 10, 2004

DARPA BEGINS CONNECTIONLESS NETWORKS PROGRAM

The Defense Advanced Research Projects Agency (DARPA) has kicked off the first phase of the Connectionless Networks (CN) program as part a continuing effort to develop technologies to enable high-efficiency, low-power radio communications.

The U.S. military is expanding the role of low duty cycle radio frequency transmission systems for battlefield deployment. This result is a critical requirement to develop data transmission schemes that require very small amounts of power to send meaningful bits of information. The goal of DARPA's Connectionless Networks program is to develop techniques and technologies that will drastically reduce the amount of energy required for data transmission. These innovations include increasing the percentage of data bits relative to total packet bits, lowering the power used by radios to deliver these data bits, developing acquisition-less waveforms, exploiting the fundamental broadcast nature of radios to achieve multicasting and other enabling innovations. The Connectionless Networks program will develop new technologies that will allow data delivery systems to rely on smaller, more efficient batteries to extend battlefield deployment life.

During the program's initial 12-month phase, contractors will study innovative technologies with a focus on radical thinking, not simply engineering solutions. The following contractors are participating:

- BAE Systems Advanced Technology Inc., Washington, D.C. ($891,483)
- BBNT Solutions LLC, Cambridge, N.H. ($851,427)
- GE Global Research, Niskayuna, N.Y. ($802,113)
- General Dynamics Decision Systems, Scottsdale, Ariz. ($199,955)
- HRL Laboratories LLC, Malibu, Calif. ($859,846)
- Raytheon Company, Falls Church, Va. ($798,848)
- Wescomm LLC, Ann Arbor, Mich. ($192,884)

This program plans subsequent, follow-on phases and will solicit future industry participation based on successful completion of this first 12-month effort.

"As much of the world is shifting to an IP-centric approach for communicating data digitally, we realize the inherit inefficiencies that the IP headers create for sending small amounts of data. In Phase I of the Connectionless Networks program, we want to study

(more)

innovative enabling technologies, such as new protocols and low-power transmitters, and look at ways to exploit a radio's inherent multicast capability to efficiently transmit and communicate a few bits of data at a time," noted Preston Marshall, DARPA's Connectionless Networks program manager.

-END-

Media with questions, please contact Jan Walker, (703) 696-2404, or Jan.Walker@darpa.mil
Contractors or military organizations, contact Mr. Preston Marshall, (703) 696-5273.